

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A display apparatus comprising:

a display section ~~(1) disposing~~ having a plurality of lighting elements ~~(11)~~;

a vertical driving section ~~(2), which can~~ operable to connect with each of the lighting elements ~~(11)~~ disposed in a row of the display section ~~(1)~~ selectively, and ~~performs impressing~~ impress current to each of the lighting elements ~~(11)~~ connected in a selected row ~~with by~~ switching every row in a vertical direction;

a plurality of horizontal driving sections ~~(3), which is~~ connected in a column direction of the display section ~~(1)~~, and operable to provide ~~providing the~~ lighting elements ~~(11)~~ connected in the selected row of the display section ~~(1)~~ by the vertical driving section ~~(2)~~ with current based on input data for the lighting elements ~~(11)~~ of each column; and

a driving control section ~~(4), which receives~~ operable to receive various control data from an external device, and ~~performs~~ perform a lighting control of the display ~~lighting~~ section ~~(1) with by~~ synchronizing the vertical driving section ~~(2)~~ and the horizontal driving sections ~~section (3)~~ based on the control data; and

wherein:

the driving control section has a first communicating section (5) communicating operable to communicate the various control data with the external device,

wherein:

the driving control section ~~(4)~~ has a second communicating section ~~(6)~~ operable to communicate ~~communicating~~ data with each of the horizontal driving sections ~~section (3)~~;

each of the horizontal driving sections ~~section (3)~~ has a horizontal driving communicating section ~~(8) communicating~~ operable to communicate data with the second communicating

section-(6) and among the horizontal driving sections-(3);

individual identification information-(23) to discriminate the horizontal driving sections
~~section-(3)~~ is set to each of the horizontal driving sections-(3);

the data transferred to each of the horizontal driving sections ~~section-(3)~~ is formatted in a
predetermined format ~~with~~ by adding the identification information-(23);

the second communicating section-(6) of the driving control section-(4) transfers the data
to the horizontal driving communicating section-(8) of each of the horizontal driving sections-(3);
and

the horizontal driving communicating ~~section-(8)~~ sections perform a lighting
control of the lighting elements-(11).

2. (Currently Amended) A display apparatus comprising:

a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11);

a vertical driving section-(2) ~~driving~~ operable to drive each row of the display section
(1) selectively;

a plurality of horizontal driving sections-(3), wherein each of the horizontal driving
sections has a ~~having~~ horizontal driving communicating section ~~sections-(8)~~ communicating
various control data, and wherein the horizontal driving sections ~~driving to~~ control lighting
gradation based on the various control data ~~with~~ by selecting the lighting elements of desired
columns in a row selected by the vertical driving section-(2); and

a driving control section-(4) having a first communicating section-(5) operable to
communicate the various control data with an external device, and a second communicating
section-(6) connected with a plurality of the horizontal driving sections-(3) serially, wherein the

driving control section controls ~~and controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3),

wherein:

the second communicating section-(6) transfers data packets having a control field-(21) including identification information-(23), which is ~~the~~ an ID to denote the horizontal driving sections-(3) to be transferred the various control data, control identification information-(24) to denote a type of the control data, and an information field-(22) including the control data to the horizontal driving sections-(3); and

the horizontal driving communicating section-(8)-receives the control data for the horizontal driving section-(3), when the ID of identification information of the transferred data packet-(20) agrees with ID stored in itself.

3. (Currently Amended) The display apparatus according to claim 1, wherein each of the horizontal driving sections ~~section~~-(3) stores a common ID to be received commonly for all of the horizontal sections-(3) and the individual ID added individually to each of the horizontal sections-(3) as identification information-(23) to judge whether to perform a receiving process for the transferred data packet-(20).

4. (Currently Amended) The display apparatus according to claim 1, wherein each of the horizontal driving communicating sections ~~section~~-(8) has a receiving section (28) performing a receiving process, and an output selecting circuit-(30) outputting the various control data input into the horizontal driving communicating section-(8) and data input from the receiving section-(28) selectively, outputs a ~~the~~ control field-(21) of an ~~the~~ input data packet-(20)

transparently from the output selecting circuit-(30), and outputs an the information field-(22) with replacing for a predetermined data packet-(20).

5. (Currently Amended) The display apparatus according to claim 4, wherein:

the predetermined data packet-(20) is a disturbance data reading packet-(20B) having the identification information-(23), the control field-(21) including control identification information (24) denoting to read a disturbance data, and the information field-(22) including dummy data (22B);

each of the horizontal driving communicating sections ~~section-(8)~~ further has a disturbance data retaining section-(29) retaining the disturbance data ~~its own~~ and outputs the disturbance data retained in the disturbance data retaining section-(29) with replacing dummy data included in the control field-(22) of the disturbance data reading packet-(20B) received in the receiving section-(28) of the horizontal driving section-(3)-with switching the output selecting circuit-(30), when the identification information-(23) of the data packet-(20) received in the receiving section-(28) of the horizontal driving section-(3) agrees with its own individual ID and has the control identification information-(23) denoting control type to read a disturbance data; and

the driving control section-(4) reads the disturbance data of the disturbance reading packet-(20B) transferred from the horizontal driving section-(3).

6. (Currently Amended) The display apparatus according to claim 4, wherein:

the predetermined data packet-(20) is a communication check packet-(20C) having the identification information-(23), the control field-(21) including control identification information

(24) denoting a communication check, and the information field-(22) including a communication check data;

each of the horizontal driving communicating sections ~~section-(8)~~ further has a data reversing section-(38) reversing data of the information field-(22); and outputs data from the data reversing section-(38) with replacing the communication check data included in the information field-(22) of the communication check packet-(20C) received in the receiving section (28) of the horizontal driving section-(3) with switching the output selecting circuit-(30), when the identification information-(23) of the data packet-(20) received in the receiving section-(28) of the horizontal driving section-(3) agrees with its own individual ID and has the control identification information-(23) denoting a control type of the communication check; and

the driving control section-(4) performs a disturbance check of a communication statement based on the data included in the information field-(22) of each communication check packet-(20C) replied from each horizontal driving section-(3) and the communication check data of the communication check packet-(20C) transferred to each horizontal driving section-(3).

7. (Currently Amended) The display apparatus according to claim 1, wherein:

the horizontal driving communicating section-(8) of each of the horizontal driving sections ~~section-(3)~~ can output only in one direction; and

the output data from the horizontal driving communicating section-(8) connected at an end position of the lowest stream in a data transferring direction in a plurality of the horizontal driving sections ~~position-(3)~~ connected serially is input to the second communicating section-(6) of the driving control section-(4).

8. (Currently Amended) The display apparatus according to claim 1, wherein:
the driving control section-~~(4)~~ or the horizontal driving section ~~(3)~~ has a first reference clock generating section-~~(7)~~ generating a first reference clock to control lighting gradation; and
each of the horizontal driving sections ~~section-(3)~~ further has a lighting control section ~~(15)~~ controlling lighting gradation based on a reference clock, a second reference clock generating section-~~(19)~~ generating a second reference clock synchronizing the various control data input from the driving control section-~~(4)~~, a reference clock selecting circuit-~~(36)~~, to which is input the first reference clock and the second reference clock, and selects the first reference clock or the second reference clock alternatively to output as the reference clock to control lighting gradation.

9. (Currently Amended) The display apparatus according to claim 8, wherein:
each of the horizontal driving sections ~~section-(3)~~ further has a first counter-~~(33)~~ counting an input of the first reference clock and generating a clear signal every predetermined count number;

a second counter-~~(34)~~ counting an input of the second reference clock until being input the clear signal from the first counter-~~(33)~~; and

the reference clock selecting circuit-~~(36)~~ selects the reference clock from the first reference clock to the second reference clock, when a count number of the second counter becomes higher than a predetermined value.

10. (Currently Amended) The display apparatus according to claim 5, wherein:
each of the horizontal driving sections ~~section-(3)~~ has a third counter-~~(40)~~ counting input

of a the first reference clock and retaining predetermined data when a count number of the input first reference data becomes a predetermined value, and clearing the count number of the first reference clock when the horizontal driving communicating section-(8) receives a frame start packet denoting frame synchronizing;

the disturbance data retaining section-(29) retains data denoting an occurrence of a disturbance of the first reference clock, when a count number of the third counter is less than the predetermined value; and

the driving control section-(4) reads the data denoting an occurrence of disturbance of the first reference clock by the disturbance data reading packet-(20B), controls the reference clock selecting circuit-(36) of the horizontal driving section-(3) occurring the disturbance to select from the first reference clock to the second reference clock by the data packet-(20).

11. (Currently Amended) The display apparatus according to claim 10, wherein the predetermined value of the count number of the first reference clock is set based on indicating a gradation number of one frame.

12. (Currently Amended) The display apparatus according to claim 1, further comprising:

a substrate is integrated with a lighting element board-(41) disposing the lighting elements-(11) and a driving circuit board-(42) having driving circuits-(10) driving the lighting elements-(11), and

wherein the driving circuits-(10) are disposed between the lighting elements.

13. (Currently Amended) A display apparatus comprising:

- a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11);
- a vertical driving section-(2) driving each row of the display section-(1) selectively;
- a plurality of horizontal driving sections-(3), wherein each of the horizontal driving sections has ~~having~~ a horizontal driving communicating section sections-(8) communicating various control data, and wherein the horizontal driving sections driving to control lighting gradation based on the various control data with by selecting the lighting elements of desired columns in a row selected by the vertical driving section-(2); and
- a driving control section-(4) having a first communicating section-(5) operable to communicate the various data with an external device and a second communicating section-(6) connected with a plurality of the horizontal driving sections-(3) serially, and wherein the driving control section controls ~~controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3), wherein:
 - the horizontal driving sections-(3) are connected to each other by signal lines and can communicate the data with the driving control section-(4);
 - the driving control section-(4) adds identification information-(23) to transferred control data to each horizontal driving section-(3) corresponding to a connecting formation of the horizontal driving sections-(3) in the display section-(1) and transfers various control data; and
 - the horizontal driving sections-(3) perform a lighting control of the lighting elements (11).

14. (Currently Amended) The display apparatus according to claim 13, wherein:

- the driving control section-(4) further has a an identification information storing section

(25) storing IDs added to the horizontal driving sections-(3) according to an order to transfer the control data to the horizontal driving sections ~~section~~-(3) corresponding to a path of the signal lines connecting the horizontal driving sections-(3) to each other; and

the driving control section-(4) transfers the control data input from the external device with adding the IDs read from the identification information storing section-(25) corresponding to each horizontal driving section-(3) one after another to the horizontal driving sections-(3) in data packet format.

15. (Currently Amended) A display apparatus comprising:

a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11);

a vertical driving section-(2) driving each row of the display section-(1) selectively;

a plurality of horizontal driving sections-(3), wherein each of the horizontal driving sections has a ~~having~~ horizontal driving communicating section ~~sections~~-(8) communicating various control data, and wherein the horizontal driving sections ~~driving to~~ control lighting gradation based on the various control data ~~with~~ by selecting the lighting elements of desired columns in a row selected by the vertical driving section-(2); and

a driving control section-(4) having a first communicating section-(5) operable to communicate the various data with an external device, and a second communicating section-(6) connected with a plurality of the horizontal driving sections-(3) serially, ~~and~~ wherein the driving control section controls ~~controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3), wherein:

each of the horizontal driving communicating sections-(8) of the horizontal driving sections-(3) has a horizontal driving side identification information storing section-(29) storing

identifying ID-(23a) denoting an ID of ~~each~~ the horizontal driving section-(3); and

the identifying ID-(23a) of each of the horizontal driving sections ~~section~~-(3) stored in the horizontal driving side identification information storing section-(29) is set to ~~different~~ different identifying IDs-(23a) from the horizontal driving section-(3) connected with the second communicating section-(6) side one after another based on a predetermined calculation.

16. (Currently Amended) The display apparatus according to claim 15, wherein:

each of the horizontal driving communicating sections ~~section~~-(8) of the horizontal driving sections ~~section~~-(3) has a receiving section-(28) for inputting and outputting data, ~~[[a]]~~ an output selecting circuit-(30) outputting data input to the horizontal driving section-(3) or the data output from the receiving section-(28) selectively;

when setting a command to set the ID of the horizontal driving section-(3) is input, the horizontal driving communicating sections-(8) ~~controls~~ control to switch the data output of the output selecting circuit-(30) from the data input to the horizontal driving section-(3) to the data output through the receiving section-(28); and

to store the identifying ID-(23a) input to the receiving section-(28) to the horizontal driving side identification information storing section-(29) and to output ~~[[a]]~~ an identifying ID (23a), which is performed the predetermined calculation against the identifying ID-(23a) input to the receiving section-(28) from the output selecting circuit-(30).

17. (Currently Amended) The display apparatus according to claim 15, wherein:

the horizontal driving communicating sections-(8) of the horizontal driving sections ~~section~~-(3) ~~has~~ have a receiving section-(28) for inputting and outputting data, ~~[[a]]~~ an output

selecting circuit-(30) outputting data input to the horizontal driving section-(3) or the data output from the receiving section-(28) selectively;

when setting a command to set the ID of the horizontal driving section-(3) is input, the horizontal driving communicating sections-(8) controls to switch the data output of the output selecting circuit-(30) from the data input to the horizontal driving section (3) to the data output through the receiving section-(28); and

to store [[a]] the identifying ID-(23a), which is performed the predetermined calculation against the identifying ID-(23a) input to the receiving section-(28), to the horizontal driving side identification information storing section-(29) and to the identifying ID performed the predetermined calculation from the output selecting circuit-(30).

18. (Currently Amended) The display apparatus according to claim 15, wherein the horizontal driving communicating sections-(8) of the horizontal driving sections section-(3) ~~controls~~ control to switch the data output of the output selecting circuit-(30) from the data through the receiving section-(28) to the data input to the horizontal driving section-(3) after outputting the identifying ID-(23a) performed the predetermined calculation from the output selecting circuit-(30).

19. (Currently Amended) The display apparatus according to claim 13, wherein:
the display section is constituted by a plurality of indicating blocks-(10) divided into m rows X n columns, wherein m, n are integers and two or more (~~m, n are integer and two or more~~) areas;

the horizontal driving sections-(3) are connected from the second communicating section

(6) side one after another ~~toward~~ in a horizontal direction serially; and

the horizontal driving section-(3) connected at an end column of the lowest stream in each row is connected with the horizontal driving section-(3) of ~~the~~ a same column in a next row.

20. (Currently Amended) The display apparatus according to claim 13, wherein:

each of the horizontal driving section-(3) ~~judges~~ sections judges whether to perform a receiving process against the transferred data packets based on the identification information-(23) added to the data packets or not, by storing an individual ID-(23A), which is added to each horizontal driving section-(3) individually, to the horizontal driving side identification information storing section-(29); and

the horizontal driving section-(3) ~~stores~~ sections store a common ID-(23B) to be received by all of the horizontal driving sections-(3) commonly.

21. (Currently Amended) The display apparatus according to claim 1, wherein a plurality of the lighting elements-(11) are disposed in a matrix shape in the display section-(1).

22. (Previously Presented) The display apparatus according to claim 1, wherein the control data is image data for image-displaying.

23. (Previously Presented) The display apparatus according to claim 1, wherein the control data is illuminating data for an illumination.

24. (Currently Amended) A display driving circuit driving a display apparatus, which

has a display section-~~(1)~~ ~~disposing~~ having a plurality of lighting elements-~~(11)~~, comprising:

a vertical driving section-~~(2)~~ driving each row of the display section-~~(1)~~ selectively;

a plurality of horizontal driving sections-~~(3)~~, wherein each of the horizontal driving sections has a ~~having~~ horizontal driving communicating section ~~sections~~-~~(8)~~ communicating lighting data for ~~lightening~~ lighting the lighting elements, performing light-driving based on the lighting data ~~with~~ by selecting the lighting elements of desired columns in a row selected by the vertical driving section-~~(2)~~; and

a driving control section-~~(4)~~ having a first communicating section-~~(5)~~ operable to communicate the lighting data with an external device, and a second communicating section-~~(6)~~ connected with a plurality of the horizontal driving sections-~~(3)~~ serially, ~~and~~ wherein the driving control section controls ~~controlling~~ the vertical driving section-~~(2)~~ and the horizontal driving sections-~~(3)~~, wherein:

the horizontal driving sections-~~(3)~~ ~~are~~ have added IDs to discriminate themselves;

the second communicating section-~~(6)~~ transfers data packets having a control field ~~(21)~~ including identification information-~~(23)~~, which is the ID to discriminate the horizontal driving section-~~(3)~~ to be transferred the lighting data, and control identification information-~~(24)~~ to denote a type of the lighting data, and an information field-~~(22)~~ including the lighting data to the horizontal driving sections-~~(3)~~; and

the horizontal driving communicating sections receive ~~section~~-~~(8)~~ ~~receives~~ the lighting data for the horizontal driving sections-~~(3)~~, when the ID of identification information-~~(23)~~ of the transferred data packet-~~(20)~~ agrees with ID added to itself.

25. (Currently Amended) A display driving circuit driving a display apparatus, which

has a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11) and a vertical driving section-(2) driving each row of the display section-(1) selectively, comprising:

a plurality of horizontal driving sections-(3), wherein each of the horizontal driving sections has a ~~having~~ horizontal driving communicating section ~~sections~~-(8) communicating lighting data for ~~lightening~~ lighting the lighting elements, performing light-driving based on the lighting data ~~with~~ by selecting the lighting elements of desired columns in a row selected by the vertical driving section-(2); and

a driving control section-(4) having a first communicating section-(5) operable to communicate the lighting data with an external device, and a second communicating section-(6) connected with a plurality of the horizontal driving sections-(3) serially, ~~and~~ wherein the driving control section controls ~~controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3), wherein[[,]]:

the horizontal driving sections-(3) ~~are~~ have added IDs to discriminate themselves;

the second communicating section-(6) transfers data packets having a control field-(21) including identification information-(23), which is the ID to discriminate the horizontal driving sections-(3) to be transferred the lighting data, and control identification information-(24) to denote a type of the lighting data, and an information field-(22) including the lighting data to the horizontal driving sections-(3); and

the horizontal driving communicating sections receive ~~section~~-(8) ~~receives~~ the lighting data for the horizontal driving sections-(3), when the ID of identification information-(23) of the transferred data packet-(20) agrees with ID added to itself.

26. (Currently Amended) A display driving circuit driving a display apparatus, which

has a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11), a vertical driving section-(2) driving each row of the display section-(1) selectively, and a plurality of horizontal driving sections-(3) each having a horizontal driving communicating sections-(8) section communicating lighting data for ~~lightening~~ lighting the lighting elements, performing light-driving based on the lighting data ~~with~~ by selecting the lighting elements of desired columns in a row selected by the vertical driving section-(2), comprising:

a driving control section-(4) having a first communicating section-(5) operable to communicate the lighting data with an external device, and a second communicating section-(6) connected with a plurality of the horizontal driving sections-(3) serially, ~~and~~ wherein the driving control section controls ~~controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3), wherein:

the horizontal driving sections-(3) ~~are~~ have added IDs to discriminate themselves;

the second communicating section-(6) transfers data packets having a control field-(21) including identification information-(23), which is the ID to discriminate the horizontal driving sections-(3) to be transferred the lighting data, and control identification information-(24) to denote a type of the lighting data, and an information field-(22) including the lighting data to the horizontal driving sections-(3); and

the horizontal driving communicating section-(8) receives the lighting data for the horizontal driving sections-(3), when the ID of identification information of the transferred data packet-(20) agrees with ID added to itself.

27. (Currently Amended) A display driving circuit driving a display apparatus, which has a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11), comprising:

a vertical driving section-(2) driving each row of the display section-(1) selectively;

a plurality of horizontal driving sections-(3), wherein each of the horizontal driving sections has a ~~having~~ horizontal driving communicating section ~~sections~~-(8) communicating lighting data for ~~lightening~~ lighting the lighting elements, performing light-driving based on the lighting data ~~with~~ by selecting the lighting elements of desired columns in a row selected by the vertical driving section-(2); and

a driving control section-(4) having a first communicating section-(5) operable to communicate the lighting data with an external device, and a second communicating section-(6) connected with a plurality of the horizontal driving sections-(3) serially, ~~and~~ wherein the driving control section controls ~~controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3), wherein:

the horizontal driving sections-(3) are connected to each other by signal lines and can communicate the data with the driving control section-(4);

the driving control section-(4) adds identification information-(23) to transferred lighting data to each horizontal driving section-(3) corresponding to a connecting formation of the horizontal driving sections-(3) in the display section-(1) and transfers the lighting data;

the horizontal driving sections-(3) perform a lighting control of the lighting elements (11);

the driving control section-(4) further has ~~[[a]]~~ an identification information storing section-(25) storing IDs added to the horizontal driving section-(3) according to an order to transfer the lighting data to the horizontal driving section-(3) corresponding to a path of the signal line connecting the horizontal driving sections-(3) to each other; and

the driving control section-(4) transfers the lighting data transferred from the external

device with adding the IDs read from the identification information storing section-(25) corresponding to each horizontal driving section-(3) one after another to the horizontal driving sections-(3) in data packet format.

28. (Currently Amended) A display driving circuit driving a display apparatus, which has a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11) and a vertical driving section-(2) driving each row of the display section-(1) selectively, comprising:

a plurality of horizontal driving sections-(3), wherein each of the horizontal driving sections has a ~~having~~ horizontal driving communicating section ~~sections~~-(8) communicating lighting data for ~~lightening~~ lighting the lighting elements, performing light-driving based on the lighting data ~~with~~ by selecting the lighting elements-(11) of desired columns in a row selected by the vertical driving section-(2); and

a driving control section-(4) having a first communicating section-(5) operable to communicate the lighting data with an external device, and a second communicating section-(6) connected with a plurality of the horizontal driving sections-(3) serially, ~~and~~ wherein the driving control section controls ~~controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3), wherein:

the horizontal driving sections-(3) are connected to each other by a signal line and can communicate the data with the driving control section-(4);

the driving control section-(4) adds identification information-(23) to transferred lighting data to each horizontal driving section-(3) corresponding to a connecting formation of the horizontal driving sections-(3) in the display section-(1) and transfers the lighting data;

the horizontal driving sections-(3) perform a lighting control of the lighting elements

(11);

the driving control section-(4) further has ~~[[a]]~~ an identification information storing section-(25) storing IDs added to the horizontal driving section-(3) according to an order to transfer the lighting data to the horizontal driving section-(3) corresponding to a path of the signal line connecting the horizontal driving sections-(3) to each other; and

the driving control section-(4) transfers the lighting data input from the external device with adding the IDs read from the identification information storing section-(25) corresponding to each horizontal driving section-(3) one after another to the horizontal driving sections-(3) in data packet format.

29. (Currently Amended) A display driving circuit driving a display apparatus, which has a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11), a vertical driving section-(2) driving each row of the display section-(1) selectively, and a plurality of horizontal driving sections-(3) each having a horizontal driving communicating sections-(8) section communicating lighting data for ~~lightening~~ lighting the lighting elements, performing light-driving based on the lighting data ~~with~~ by selecting the lighting elements of desired columns in a row selected by the vertical driving section-(2), comprising:

a driving control section-(4) having a first communicating section-(5) operable to communicate the lighting data with an external device, and a second communicating section-(6) connected with a plurality of the horizontal driving sections-(3) serially, ~~and~~ wherein the driving control section controls ~~controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3), wherein:

the horizontal driving sections-(3) are connected to each other by a signal line and can

communicate the data with the driving control section-(4);

the driving control section-(4) adds identification information-(23) to transferred lighting data to each horizontal driving section-(3) corresponding to a connecting formation of the horizontal driving sections-(3) in the display section-(1) and transfers the lighting data;

the horizontal driving sections-(3) perform lighting control of the lighting elements-(11);

the driving control section-(4) further has ~~[[a]]~~ an identification information storing section-(25) storing IDs added to the horizontal driving section-(3) according to an order to transfer the lighting data to the horizontal driving section-(3) corresponding to a path of the signal line connecting the horizontal driving sections-(3) to each other; and

the driving control section-(4) transfers the lighting data input from the external device with adding the IDs read from the identification information storing section-(25) corresponding to each horizontal driving section-(3) one after another to the horizontal driving sections-(3) in data packet format.

30. (Currently Amended) A method for driving a display apparatus, which has a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11), a vertical driving section-(2) driving each row of the display section-(1) selectively, and a plurality of horizontal driving sections-(3), wherein each of the horizontal driving section has a ~~which have~~ horizontal driving communicating section ~~sections~~-(8) communicating lighting data for ~~lightening~~ lighting the lighting elements and ~~perform~~ performing light-driving based on the lighting data ~~with~~ by selecting the lighting elements of desired columns in a row selected by the vertical driving section-(2), wherein the horizontal driving sections are connected to each other by a signal line and can communicate the data with a driving control section-(4), comprising:

~~a step that the driving control section (4) stores~~ storing, by the driving control section,
IDs added to the horizontal driving section (3) corresponding to a path of the signal line
connecting the horizontal driving sections (3) to each other;

~~a step that the driving control section (4) adds~~ adding, by the driving control section, IDs
identifying the horizontal driving sections (3) to the horizontal driving sections (3);

~~a step that the driving control section (4) transfers~~ transferring, by the driving control
section, the lighting data input from an external device with adding the stored IDs corresponding
to each horizontal driving section (3) one after another to the horizontal driving sections (3) in
data packet format; and

~~a step that the horizontal driving sections (3) receive~~ receiving, by the horizontal driving
sections, the data packet for itself, ~~and perform~~ performing a predetermined process, and then
~~transfer~~ transferring the data to the horizontal driving section (3) connected next or the driving
control section (4).

31. (Currently Amended) A driving circuit of an image display apparatus comprising:

~~(a) the driving circuit of the image display apparatus having~~

a display section (1) ~~disposing~~ having a plurality of lighting elements (11) in a matrix
shape[[,]];

a vertical driving section (2) driving each row of the display section (1) selectively[[,]];

a plurality of horizontal driving sections (3), wherein each of the horizontal driving
sections has a having horizontal driving communicating section sections (8) communicating
various control data including image data, and wherein the horizontal driving sections driving to
control lighting gradation based on the various control data ~~with~~ by selecting the lighting

elements of desired columns in a row selected by the vertical driving section-(2);

a driving control section-(4) having a first communicating section-(5) operable to communicate the various data with an external device, and a second communicating section-(6) connected with a plurality of the horizontal driving sections-(3) serially, and wherein the driving control section controls ~~controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3); and

~~(b)~~ wherein the second communicating section-(6) transfers data packets having a control field-(21) including identification information-(23), which is the ID to denote the horizontal driving sections-(3) to be transferred the various control data, and control identification information-(24) to denote a type of the control data, and an information field-(22) including the control data to the horizontal driving sections-(3), and

wherein the horizontal driving communicating section-(8) receives the control data for the horizontal driving sections-(3), when the ID of identification information of the transferred data packet-(20) agrees with ID stored therein ~~in its own~~.

32. (Currently Amended) A driving circuit of an image display apparatus comprising:

~~(a) the driving circuit of the image display apparatus having~~

a display section-(1) ~~disposing~~ having a plurality of lighting elements-(11) in a matrix shape[[,]];

a vertical driving section-(2) driving each row of the display section-(1) selectively[[,]];

a plurality of horizontal driving sections-(3), wherein each of the horizontal driving sections has a ~~having~~ horizontal driving communicating section ~~sections~~-(8) communicating various control data including image data, and wherein the horizontal driving sections ~~driving to~~

control lighting gradation based on the various control data ~~with~~ by selecting the lighting elements-(11) of desired columns in a row selected by the vertical driving section-(2);;

a driving control section-(4) having a first communicating section-(5) operable to communicate the various data with an external device, and a second communicating section-(6) connected with a plurality of the horizontal driving sections-(3) serially, ~~and~~ wherein the driving control section controls ~~controlling~~ the vertical driving section-(2) and the horizontal driving sections-(3),

(b) wherein the horizontal driving sections-(3) are connected to each other by a signal line and can communicate the data with the driving control section-(4),

wherein the driving control section-(4) adds identification information-(23) to transferred control data to each horizontal driving section-(3) corresponding to a connecting formation of the horizontal driving sections-(3) in the display section-(1) and transfers the various control data, ~~and~~

wherein the horizontal driving sections-(3) perform lighting control of the lighting elements-(11),

(e) wherein the driving control section-(4) further has ~~[[a]]~~ an identification information storing section-(25) storing IDs added to the horizontal driving section-(3) according to an order to transfer the control data to the horizontal driving section-(3) corresponding to a path of the signal line connecting the horizontal driving sections-(3) to each other~~[[;]]~~, and

(d) wherein the driving control section-(4) transfers the control data input from the external device with adding the IDs read from the identification information storing section-(25) corresponding to each horizontal driving section-(3) one after another to the horizontal driving sections-(3) in data packet format.